

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 2

RECEIVED
CENTRAL FAX CENTER

AUG 13 2007

The listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A baggage screening system, comprising:

a plurality of screening subsystems, each comprising an automated bag screen device and a feed conveyor for feeding bags to said screen device, said bag screen device adapted to screen baggage for at least one chosen from weapons and explosive devices;

a supply conveyor adapted to selectively supply bags to said screening subsystems;

a cleared bag conveyor and an uncleared bag conveyor, said uncleared bag conveyor adapted to deliver bags to a manual screening function; and

a sortation conveyor network downstream of said screening subsystem to selectively divert bags to said cleared bag conveyor or said uncleared bag conveyor;

wherein said sortation conveyor network comprises a ~~buffer~~ secondary bag screen system, said secondary bag screen system downstream of each said bag screen device ~~and a pair of diverters associated with each said buffer, said buffer adapted to buffer bags for a secondary bag screening function, one of said a first diverter[[s]] upstream of the associated said buffer~~ between said bag screen device and said secondary bag screen system being adapted to divert a bag to either said cleared bag conveyor or said ~~buffer~~ secondary bag screen system, ~~another of said a second diverter[[s]] downstream of the associated said buffer~~ secondary bag screen system being adapted to divert a bag to either said cleared bag conveyor or said uncleared bag conveyor, wherein bags cleared by either said bag screen device or said secondary bag screening ~~function~~ system are delivered to said cleared bag conveyor, wherein bags not cleared by said bag screen device are delivered to said secondary bag screen system, and wherein bags not cleared by said secondary bag screening ~~function~~ system are delivered to said uncleared bag conveyor for delivery to said manual screening function.

2. (Original) The system of claim 1 wherein said supply conveyor includes a recirculation line for recirculating bags to an upstream portion of said supply conveyor that have not been supplied to a screening subsystem.

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 3

3. (Original) The system of claim 1 wherein bags are transported through said screen device at a first speed and said supply conveyor operates at a second speed that is greater than said first speed and wherein said feed conveyor includes a deceleration conveyor.

4. (Original) The system of claim 3 wherein said deceleration conveyor receives a bag at said second speed and decelerates said bag to said first speed.

5. (Previously presented) The system of claim 1 including an input diverter at each of said screening subsystems for selectively diverting a bag to that screening subsystem, said input diverter controlling orientation of a bag being diverted.

6. (Previously presented) The system of claim 5 wherein said input diverter is a powered-face diverter.

7. - 10. (Cancelled)

11. (Amended) A baggage screening system, comprising:

a plurality of screening subsystems, each comprising an automated bag screen device and a feed conveyor for feeding bags to said screen device, said bag screen device adapted to screen baggage for at least one chosen from weapons and explosive devices;

a supply conveyor adapted to selectively supply bags to said screening subsystems, said supply conveyor supplying bags only to a screening subsystem that has no more than a particular number of unscreened bags that are at that screening subsystem;

a cleared bag conveyor and an uncleared bag conveyor; and

a sortation conveyor network downstream of said screening subsystem to selectively divert bags to said cleared bag conveyor or said uncleared bag conveyor;

wherein said sortation conveyor network comprises a buffer secondary bag screen system, said secondary bag screen system downstream of each said bag screen device and a pair of diverters associated with each said buffer, said buffer adapted to buffer bags for a secondary bag screening function, one of said a first diverter[[s]] upstream of the associated said buffer between said bag screen device and said secondary bag screen system being adapted to divert a

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 4

bag to either said cleared bag conveyor or said ~~buffer secondary bag screen system~~, another of said a second diverter[[s]] downstream of the associated said ~~buffer secondary bag screen system~~ being adapted to divert a bag to either said cleared bag conveyor or said uncleared bag conveyor, wherein bags cleared by either said bag screen device or said secondary bag screening function ~~system~~ are delivered to said cleared bag conveyor, wherein bags not cleared by said bag screen device are delivered to said secondary bag screen system, and wherein said secondary bag screening function ~~system~~ uses images of bags captured by said screen device and includes a display, said display adapted to display the bag images captured by said screen device.

12. (Amended) The system of claim 11 wherein bags are not queued at said feed conveyor.

13. (Amended) The system of claim 11 wherein bags travel substantially only at non-zero speeds through said supply conveyor and said feed conveyor.

14. (Amended) A screening module for a baggage screening system having an automated bag screen device and a supply conveyor adapted to selectively supply bags to said screening module from a supply conveyor, said screening module comprising:

a feed conveyor for feeding bags to the screen device and a sortation conveyor network downstream of said screen device, said bag screen device adapted to screen baggage for at least one chosen from weapons and explosive devices;

a cleared bag conveyor and an uncleared bag conveyor, said uncleared bag conveyor adapted to deliver bags to a manual screening function;

said feed conveyor comprising a deceleration conveyor for decreasing speeds of individual bags being supplied to said bag screen device; and

said sortation conveyor network sorting bags as a function of the screening of the bags wherein said sortation conveyor network selectively diverts bags to said cleared bag conveyor or said uncleared bag conveyor;

wherein said sortation conveyor network comprises a buffer secondary bag screen system, said secondary bag screen system downstream of each said bag screen device and ~~a pair of diverters associated with each said buffer~~, ~~said buffer adapted to buffer bags for a secondary bag screening function~~, ~~one of said a first diverter~~[[s]] ~~upstream of the associated said buffer~~

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 5

between said bag screen device and said secondary bag screen system being adapted to divert a bag to either said cleared bag conveyor or said ~~buffer~~ secondary bag screen system, ~~another of said a second diverter~~ downstream of the associated said buffer secondary bag screen system being adapted to divert a bag to either said cleared bag conveyor or said uncleared bag conveyor, wherein bags cleared by either said bag screen device or said secondary bag screening function system are delivered to said cleared bag conveyor, wherein bags not cleared by said bag screen device are delivered to said secondary bag screen system, and wherein bags not cleared by said secondary bag screening function system are delivered to said uncleared bag conveyor for delivery to said manual screening function.

15. – 17. (Cancelled)

18. (Amended) The module of claim 14 wherein said secondary bag screening function system uses images of bags captured by said screen device.

19. (Original) The module of claim 14 wherein bags are not queued at said feed conveyor.

20. (Original) The module of claim 14 wherein bags travel substantially only at non-zero speeds through said feed conveyor.

21. (Original) The module of claim 14 wherein said screen device is mounted substantially above floor level.

22. (Amended) A method of screening bags, comprising:

providing a plurality of automated bag screen devices and a conveyor system, said bag screen devices adapted to screen baggage for at least one chosen from weapons and explosive devices;

supplying bags individually to said screen devices with said conveyor system;

providing a cleared bag conveyor and an uncleared bag conveyor;

delivering bags on said uncleared bag conveyor to a manual screening function;

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 6

providing a sortation conveyor network downstream of said screen devices to selectively divert bags to said cleared bag conveyor or said uncleared bag conveyor;

wherein said sortation conveyor network comprises a ~~buffer~~ secondary bag screen system, said secondary bag screen system downstream of each said screen device and a ~~pair of diverters associated with each said buffer~~ first diverter between said bag screen device and said secondary bag screen system;

~~buffering bags for a secondary bag screening function with said buffer;~~

diverting a bag to either said cleared bag conveyor or said ~~buffer~~ uncleared bag conveyor with ~~one of said first diverter[[s]] upstream of the associated said buffer;~~ and

diverting a bag to either said cleared bag conveyor or said uncleared bag conveyor with ~~another a second of said diverter[[s]] downstream of the associated said buffer~~ secondary bag screen system;

wherein bags cleared by either said bag screen device or said secondary bag screening ~~function system~~ are diverted to said cleared bag conveyor, wherein bags not cleared by said bag screen device are delivered to said secondary bag screen system, and wherein bags not cleared by said secondary bag screening ~~function system~~ are delivered to said uncleared bag conveyor for delivery to said manual screening ~~area~~ function.

23. (Original) The method of claim 22 including supplying bags only to screening devices that have at least partially screened each of the bags that have been supplied to that screening device.

24. (Original) The method of claim 22 wherein said conveyor system includes feed conveyors, each for feeding bags to one of said screen devices and a supply conveyor for supplying bags to said feed conveyors .

25. (Original) The method of claim 24 including recirculating bags to an upstream portion of said supply conveyor that have not been supplied to a feed conveyor.

26. (Original) The method of claim 24 including transporting bags through said screen device at a first speed and at said supply conveyor at a second speed that is greater than said first speed, including providing a deceleration conveyor at said feed conveyor.

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 7

27. (Original) The method of claim 26 including receiving a bag with said deceleration conveyor at said second speed and decelerating said bag to said first speed.

28. (Previously presented) The method of claim 22 including providing an input diverter for each of said screen devices and selectively diverting a bag to a screen device with the corresponding input diverter including controlling orientation of a bag being diverted.

29. (Original) The method of claim 28 wherein said diverter is a powered-face diverter.

30. – 33. (Cancelled)

34. (Amended) A method of screening bags, comprising:

providing a plurality of automated bag screen devices and a conveyor system, said bag screen devices adapted to screen baggage for at least one chosen from weapons and explosive devices;

supplying bags individually to said screen devices with said conveyor system;

providing a cleared bag conveyor and an uncleared bag conveyor;

providing a sortation conveyor network downstream of said screen devices to selectively divert bags to said cleared bag conveyor or said uncleared bag conveyor;

wherein said sortation conveyor network comprises a buffer secondary bag screen system, said secondary bag screen system downstream of each said screen device and a pair of diverters associated with each said buffer first diverter between said bag screen device and said secondary bag screen system;

buffering screening bags for a at said secondary bag screening function system with said buffer, wherein said secondary bag screening function uses using images of bags captured by said screen device;

diverting a bag to either said cleared bag conveyor or said buffer uncleared bag conveyor with one of said first diverter upstream of the associated said buffer; and

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 8

diverting a bag to either said cleared bag conveyor or said uncleared bag conveyor with ~~another a second of said~~ diverter[[s]] downstream of the associated said ~~buffer~~secondary bag screen system;

wherein bags cleared by either said bag screen device or said secondary bag screening ~~function~~ system are delivered to said cleared bag conveyor.

35. (Original) The method of claim 24 34 including not queuing bags at said feed conveyor.

36. (Previously presented) The system of claim 1 wherein said supply conveyor supplies bags only to a screening subsystem that has no more than a particular number of unscreened bags that are at that screening subsystem.

37. (Previously presented) The system of claim 11 wherein said supply conveyor includes a recirculation line for recirculating bags to an upstream portion of said supply conveyor that have not been supplied to a screening subsystem.

38. (Previously presented) The system of claim 11 wherein bags are transported through said screen device at a first speed and said supply conveyor operates at a second speed that is greater than said first speed and wherein said feed conveyor includes a deceleration conveyor.

39. (Previously presented) The system of claim 38 wherein said deceleration conveyor receives a bag at said second speed and decelerates said bag to said first speed.

40. (Previously presented) The system of claim 11 including an input diverter at each of said screening subsystems for selectively diverting a bag to that screening subsystem, said input diverter controlling orientation of a bag being diverted.

41. (Previously presented) The system of claim 40 wherein said input diverter is a powered-face diverter.

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 9

42. (Previously presented) The method of claim 34 including supplying bags only to screening devices that have at least partially screened each of the bags that have been supplied to that screening device.

43. (Previously presented) The method of claim 34 wherein said conveyor system includes feed conveyors, each for feeding bags to one of said screen devices and a supply conveyor for supplying bags to said feed conveyors .

44. (Previously presented) The method of claim 43 including recirculating bags to an upstream portion of said supply conveyor that have not been supplied to a feed conveyor.

45. (Previously presented) The method of claim 43 including transporting bags through said screen device at a first speed and at said supply conveyor at a second speed that is greater than said first speed, including providing a deceleration conveyor at said feed conveyor.

46. (Previously presented) The method of claim 45 including receiving a bag with said deceleration conveyor at said second speed and decelerating said bag to said first speed.

47. (New) The baggage screening system of claim 1, wherein said secondary bag screen system further comprises a buffer and a pair of diverters associated with each said buffer.

48. (New) The baggage screening system of claim 11, wherein said secondary bag screen system further comprises a buffer and a pair of diverters associated with each said buffer.

49. (New) The baggage screening system of claim 14, wherein said secondary bag screen system further comprises a buffer and a pair of diverters associated with each said buffer.

50. (New) The method of claim 22, wherein said sortation conveyor network further comprises a buffer, said method further comprising buffering bags for said secondary bag screening system with said buffer.

Serial No. : 10/710,442
Filing Date : July 12, 2004
Page 10

51. (New) The method of claim 34, wherein said sortation conveyor network further comprises a buffer, said method further comprising buffering bags for said secondary bag screening system with said buffer.